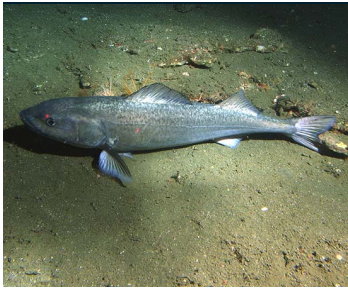


## 7 | Active Harvest Strategy

# British Columbia Sablefish



### Management Authority:

Canada (domestic)

### Adoption Year:

2010

### Management Objectives:

- Maintain female spawning stock biomass above the LRP of  $0.4B_{MSY}$  in 95% of years measured over two sablefish generations (36 years)
- When in the Cautious Zone (i.e.,  $0.4B_{MSY} < B < 0.8B_{MSY}$ ), limit the probability of decline over the next 10 years to very low (5%) at the LRP, increasing linearly to moderate (50%) at the TRP
- Maintain the female spawning biomass above  $B_{MSY}$ , or  $0.8B_{MSY}$  when rebuilding from the Cautious Zone, in the year 2052 with 50% probability
- Minimize probability that annual TAC levels are below 1,992 tonnes measured over two Sablefish generations
- Maximize the average annual catch over 10 years, subject to meeting the four objectives above

### Reference Points:

- **Upper Stock Reference Point:**  $0.8B_{MSY}$
- **Limit Reference Point:**  $0.4B_{MSY}$
- **Target Reference Point:**  $B_{MSY}$  or  $0.8B_{MSY}$  (when rebuilding from the Cautious Zone)

### Harvest Strategy:

A fully specified harvest strategy that has been tested via MSE. Operating models for the MSE continue to be updated, most recently in 2019, to account for new data.

#### Specifications:

- **Type:** Model-based
- **Management cycle:** Annual
- **Data inputs:** Stock assessment using a surplus production model
- **Management output:** Quota
- **Harvest Control Rule:** A harvest control rule in which the harvest rate on legal-sized sablefish is reduced linearly from  $U_{MSY}$  (maximum sustainable yield), when the estimated stock is above  $0.6B_{MSY}$ , to zero when the estimated stock size is less than  $0.4B_{MSY}$

### Outcome:

A 2019 update found that sablefish have now recovered to or above  $0.8B_{MSY}$  with 50% probability, so are now outside of the Cautious Zone. The 2019-2020 TAC was the highest TAC recommended thus far by the HCR.

### Link to relevant policy document or update:

- [Integrated fisheries management plan summary: Groundfish - Pacific Region, 2022 \(https://www.pac.dfo-mpo.gc.ca/fm-gp/mplans/ground-fond-ifmp-pgjp-sm-eng.html\)](https://www.pac.dfo-mpo.gc.ca/fm-gp/mplans/ground-fond-ifmp-pgjp-sm-eng.html)
- [Evaluating the robustness of management procedures for the Sablefish \(Anoplopoma fimbria\) fishery in British Columbia, Canada for 2017-18 \(https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2019/2019\\_032-eng.html\)](https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2019/2019_032-eng.html)